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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/622,615	08/18/2000	Mitsuzou Nogami	000774	7364

7590 07/17/2002

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EXAMINER
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MERCADO, JULIAN A

ART UNIT	PAPER NUMBER
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1745

6

DATE MAILED: 07/17/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

1-P

<b>Office Action Summary</b>	<b>Applicati n No.</b>	<b>Applicant(s)</b>	
	09/622,615	NOGAMI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Julian A. Mercado	1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 April 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 6-10 and 19-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 11-18, 25 and 26 is/are rejected.
- 7) ☒ Claim(s) 1, 2 and 12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 8-18-2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All   b) ☐ Some \*   c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>3</u> . | 6) <input type="checkbox"/> Other: _____                                    |

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## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election of Group I, claims 1-5, 11-18, 25 and 26 in Paper No. 5 is acknowledged. Because Applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 6-10 and 19-24 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a non-elected invention, there being no allowable generic or linking claim.

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the instant "second intermediate layer formed on said intermediate layer", i.e. two mutually distinct layers must be shown or the feature canceled from claims 16 and 17. No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

Claims 1, 2 and 12 are objected to because of the following informalities:

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a. In claims 1, 2 and 12, "lanthanoid" appears to be recited as if it were an elemental substance. It is suggested to change "lanthanoid" to --a lanthanoid series element--.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-3, 5 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Ohta et al. (U.S. Pat. 5,571,636).

Ohta teaches a nickel electrode having nickel hydroxide as an active material applied to a porous nickel substrate. (col. 4 line 48 et seq.) The electrode is specifically disclosed as a positive electrode. (col. 5 lines 56-59, applies to claim 26) The cobalt hydroxide is calculated by

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the examiner to be present in one example at 1.75 wt %. (col. 6 line 20, applies to claim 5) A coating layer of Sr or Ca hydroxide and containing cobalt is formed on the nickel substrate. (col. 3 lines 34-48, applies to claims 1 and 2)

As to claim 3 which recites that the coating layer is “heat-treated in the presence of alkali and oxygen”, this limitation has not been given patentable weight, as the method limitation does not give breadth or scope and fails to further limit the product claim.

Claims 1-3, 5, 11 and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamamura et al. (U.S. 5,804,334).

Ohta teaches a nickel electrode having nickel hydroxide as an active material applied to a porous nickel substrate, wherein a coating layer is “adsorbed” on the surface of the nickel hydroxide active material. (col. 5 line 1 et seq.) The electrode is specifically disclosed as a positive electrode. (col. 6 line 60, applies to claim 11 and 26) The substrate is specifically disclosed to be porous. (col. 5 line 58) The coating layer contains a hydroxide of Sr and Ca, *inter alia*. (applies to claims 1 and 2)

As to claim 3 which recites that the coating layer is “heat-treated in the presence of alkali and oxygen”, this limitation has not been given patentable weight, as the method limitation does not give breadth or scope and fails to further limit the product claim.

As to claim 5, the amount of hydroxide in this example is calculated by the examiner at 1.7 wt %.

Claims 1-5, 11-18, 25 and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Ohta et al. (U.S. 6,287,726 B1).

Ohta teaches a nickel electrode having nickel hydroxide as an active material applied to a porous nickel substrate. (col. 2 line 40 et seq.) .) The electrode is specifically disclosed as a positive electrode. (col. 2 lines 40-41, applies to claims 11, 25 and 26) Sintered nickel substrates are specifically disclosed as conventional. (col. 1 line 14 et seq.) The coating layer contains a hydroxide of Sr, Ca, and a lanthanide such as Ce, *inter alia*. (applies to claims 1, 2, 4 and 18) The examiner notes that these elements are added to the active material while in alkaline solution, thus, it is reasonably presumed that the hydroxide of these elements coats the active material. Support for the examiner's reasoning is found in column 2 line 65 et seq. as follows:

65 The above-mentioned nickel hydroxide can be produced by the steps of adding an aqueous solution containing a cobalt ion and an ion of at least one metallic element

selected from the group consisting of Ca, Sr, Ba, Cu, Ag, Cd, Y, Yb, Ce, Sm, Gd and Er to an aqueous dispersion of a nickel hydroxide particle, under a pH condition adjusted with an alkaline aqueous solution, to obtain an active material particle in which the nickel hydroxide particle is coated with a coating layer composed of a compound of cobalt and a compound of at least one element, and heating the active material particle thus obtained in the presence of both oxygen and an alkaline aqueous solution. Here, the

Additionally, from reading Applicant's disclosure, addition of the active material elements is similarly performed in the instant invention in an aqueous alkaline solution of KOH.

As to claims 3, 15 and 17 which recites that the coating layer or intermediate layer is "heat-treated in the presence of alkali and oxygen", this limitation has not been given patentable weight, as the method limitation does not give breadth or scope and fails to further limit the

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product claim. However, it is noted that the patentees specifically teach such a heat treatment step as found in the above cited disclosure, specifically in lines 8-9.

As to claim 5, the amount of hydroxide is specifically disclosed at 1:100, i.e. 1 wt. %.

(col. 5 line 33)

Claim 12 is found similar in scope to claims 1 and 2, with the additional limitation of an intermediate coating layer formed between the substrate and the active material. To this extent, the patentees teach the following as found in column 3 lines 11-18:

In still another preferred mode of the present invention, the nickel positive electrode for alkaline storage batteries comprises a particle composed of aggregated crystals of a nickel hydroxide material with a coating layer of a compound of cobalt having a mean valence over 2, the particle <sup>15</sup> containing inside and on the surface thereof a compound of at least one metallic element selected from the group consisting of Ca, Sr, Ba, Cu, Ag, Cd, Y, Yb, Ce, Sm, Gd and Er.

Thus, the patentees teach “a coating layer of a compound of cobalt” [hydroxide] on the surface layer of the nickel hydroxide particle, along with an intermediate hydroxide layer (both inside and on the surface thereof) of Sr, Ca, or Ce. (see also col. 4 lines 29-31, applies to claims 14 and 16) Thus, as these intermediate coating layers coat the nickel hydroxide particle, at least a part of these layers is interposed between the nickel hydroxide particle and the substrate. (applies to claim 13) The examiner notes that the instant “active material mainly containing nickel hydroxide” is not specifically claimed to be present in layered form. A prior art teaching of an active material particle having a coating layer both on its inner and outer surfaces would result in this layer being interposed, at least in part, between the particle and the active material substrate.

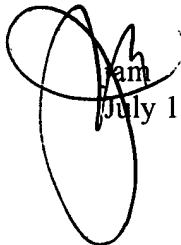
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***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian A. Mercado whose telephone number is (703) 305-0511. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan, can be reached on (703) 308-2383. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3599 for regular communications and (703) 305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

  
July 15, 2002

  
Patrick Ryan  
Supervisory Patent Examiner  
Technology Center 1700